

IN THE CLAIMS

Claims 1-14 (Canceled).

Claim 15 (Previously Presented): A thin-film solar cell comprising:

an absorber layer;

at least one transparent window electrode disposed on a side on which light is incident, said window electrode comprising at least a first metallic layer and at least one antireflective layer deposited on the side on which light is incident, situated opposite the absorber layer; and

at least one first refractive dielectric oxide or nitride layer between the absorber layer and the metallic layer of the window electrode.

Claim 16 (Currently Amended): A thin-film solar cell according to Claim 15, wherein said at least one first dielectric layer includes non-doped zinc oxide.

Claim 17 (Previously Presented): A thin-film solar cell according to Claim 15, wherein the metallic layer includes silver or silver alloy and the antireflective layer is a refractive oxide or nitride layer.

Claim 18 (Previously Presented): A thin-film solar cell according to Claim 15, wherein the window electrode is formed by a succession of layers comprising at least one dielectric layer, said metallic layer, and another dielectric layer.

Claim 19 (Previously Presented): A thin-film solar cell according to Claim 15, wherein the window electrode comprises in succession said first refractive layer, said first metallic layer, a second refractive layer, a second metallic layer, and said antireflective layer.

Claim 20 (Previously Presented): A thin-film solar cell according to Claim 15, wherein said at least one first refractive layer includes one of the oxides ZnO, SnO₂, BiO_x, TiO₂, Al₂O₃ and/or one of the nitrides AlN, Si₃N₄.

Claim 21 (Previously Presented): A thin-film solar cell according to Claim 15, further comprising a second electrode including at least one metallic layer and one refractive oxide or nitride layer.

Claim 22 (Previously Presented): A thin-film solar cell according to Claim 15, wherein the metallic layer of the window electrode has a thickness of less than 20 nm, and a total thickness of the window electrode is less than 120 nm.

Claim 23 (Previously Presented): A thin-film solar cell according to Claim 15, further comprising a blocking layer disposed between the metallic layer and said at least one refractive layer.

Claim 24 (Previously Presented): A process for manufacturing a thin-film solar cell comprising:

providing an absorber layer and at least one transparent window electrode dispersed on a side on which light is incident, with at least one metallic layer and one antireflective layer applied on the side on which light is incident; and

forming at least one refractive dielectric oxide or nitride layer between the absorber layer and the metallic layer of the window electrode.

Claim 25 (Previously Presented): A process according to Claim 24, wherein the window electrode is formed by a succession of layers with one metallic layer between two refractive oxide or nitride layers.

Claim 26 (Currently Amended): A process according to Claim 24, wherein the window electrode is formed by a succession of a first ~~conductive~~ dielectric or transparent layer, of the metallic layer, and of another ~~conductive~~ dielectric or transparent layer.

Claim 27 (Previously Presented): A process according to Claim 24, further comprising forming a second electrode by applying at least one other metallic layer and one other refractive oxide or nitride layer.

Claim 28 (Previously Presented): A process according to Claim 24, wherein the absorber layer comprises chalcopyrite.

Claim 29 (Previously Presented): A thin-film solar cell according to Claim 15, wherein said at least one dielectric layer has a thickness of about 30 to about 50 nm.

Claim 30 (Previously Presented): A thin-film solar cell according to Claim 15, wherein the metallic layer is disposed between two dielectric layers having a thickness of about 30 to about 50 nm.

Claim 31 (Previously Presented): A thin-film solar-cell according to Claim 17, wherein the antireflective layer comprises a layer of refractive oxide covered by a layer of nitride.

Claim 32 (Previously Presented): A thin-film solar cell according to Claim 15, wherein the absorber layer comprises a CIS structure.

Claim 33 (Currently Amended) A thin-film solar cell comprising:
an absorber layer;
at least one transparent window electrode disposed on a side on which light is incident, said window electrode comprising at least a first metallic layer and at least one antireflective layer deposited on the side on which light is incident, situated opposite the absorber layer; and
at least one first refractive dielectric oxide or nitride layer between the absorber layer and the metallic layer of the window electrode, and having a thickness of about 30 to about 50 nm.

Claim 34 (Currently Amended): A thin-film solar cell according to Claim 33, wherein said at least one first dielectric layer includes non-doped zinc oxide.

Claim 35 (Previously Presented): A thin-film solar cell according to Claim 33, wherein the metallic layer includes silver or silver alloy and the antireflective layer is a refractive oxide or nitride layer.

Claim 36 (Previously Presented): A thin-film solar cell according to Claim 33, wherein the window electrode is formed by a succession of layers comprising at least one dielectric layer, said metallic layer, and another dielectric layer.

Claim 37 (Previously Presented): A thin-film solar cell according to Claim 33, wherein the window electrode comprises in succession said first refractive layer, said first metallic layer, a second refractive layer, a second metallic layer, and said antireflective layer.

Claim 38 (Previously Presented): A thin-film solar cell according to Claim 33, wherein said at least one first refractive layer includes one of the oxides ZnO, SnO₂, BiO_x, TiO₂, Al₂O₃ and/or one of the nitrides AlN, Si₃N₄.

Claim 39 (Previously Presented): A thin-film solar cell according to Claim 33, further comprising a second electrode including at least one metallic layer and one refractive oxide or nitride layer.

Claim 40 (Previously Presented): A thin-film solar cell according to Claim 33, wherein the metallic layer of the window electrode has a thickness of less than 20 nm, and a total thickness of the window electrode is less than 120 nm.

Claim 41 (Previously Presented): A thin-film solar cell according to Claim 33, further comprising a blocking layer disposed between the metallic layer and said at least one refractive layer.

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Claim 42 (Previously Presented): A thin-film solar-cell according to Claim 35, wherein the anti-reflective layer comprises a layer of refractive oxide covered by a layer of nitride.

Claim 43 (Previously Presented): A thin-film solar cell according to Claim 33, wherein the absorber layer comprises a CIS structure.

Claim 44 (Previously Presented): A thin-film solar cell according to Claim 33, wherein the metallic layer is disposed between two refractive layers having a thickness of about 30 to about 50 nm.